

REPTILIA: SQUAMATA: COLUBRIDAE

ENULIOPHIS, *E. sclateri*

Catalogue of American Amphibians and Reptiles.

McCranie, J.R. 2004. *Enuliophis*, *E. sclateri*.

Enuliophis McCranie and Villa

Enuliophis McCranie and Villa 1993:262. Type species: *Leptocalamus sclateri* Boulenger (1894), by original designation and by monotypy.

• **CONTENT.** One species, *Enuliophis sclateri*, is recognized.

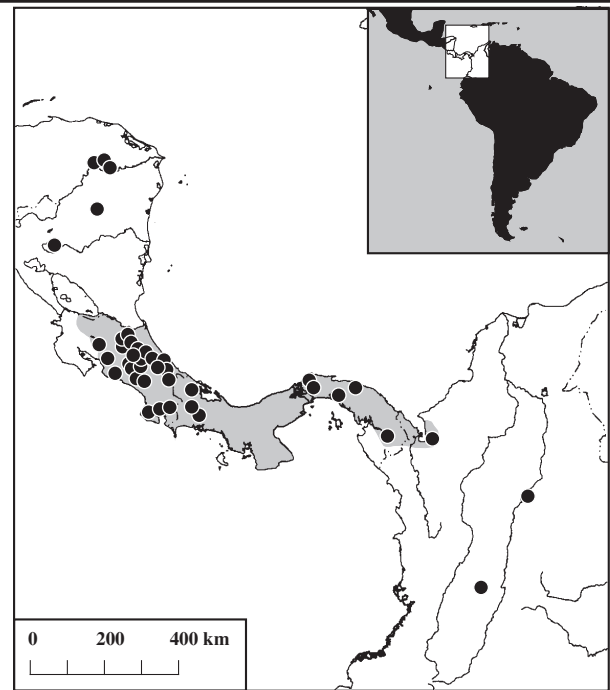
• **DEFINITION.** These snakes are small to moderate in size (to 700 mm TL, Hayes et al. 1989; to 550 mm, Savage 2002), with long (37–42% of TL), thickened, and fragile (frequently broken) tails. Dorsal head scales follow the colubrid pattern. The snout is broadly rounded in dorsal outline and rounded in profile. The head is slightly distinct from the neck and the body is cylindrical. Eyes are small and pupils circular. Nasals are divided. Loreals are elongate and border the orbit (no preoculars are present). Two postoculars and 1 + 2 temporals are present. Supralabials number seven (rarely six), with the third and fourth bordering the orbit. Infralabials number seven, with the first pair in contact medially behind the mental and the first three in contact with the anterior chinshields. Two pairs of chinshields are present. Posterior chinshields are separated from one another by an azygous scale. Dorsal body scales are smooth, in 15–15–15 scale rows, and often have paired apical pits. Anal ridges are present in males. The cloacal scute (= anal plate) is divided. Ventrals number 129–151 and paired subcaudals 96–103.

The everted hemipenis is about eight subcaudals long and is slightly bilobed. The sulcus spermaticus is centrifugal, with the branches diverging at about the level of the third subcaudal. The organ is non-capitate. Two very large spines are present on the sulcate side of the truncus and 2–4 enlarged spines are present on each outer shoulder above the very large spines. A few widely scattered spinules also are present on the sulcate side of the truncus. The asulcate side of the truncus has about six widely separated enlarged spines. The apical region has widely spaced, small spines on an otherwise nude organ. The pedicel is covered with numerous minute spines on the sulcate side and is mostly nude on the asulcate side. No basal naked pocket is present.

Maxillary teeth number 4 + 2–3. The 2–3 ungrooved, greatly enlarged posterior teeth are not separated from the anterior teeth by a diastema (McCranie and Villa 1993).

Dorsal surfaces of the body and tail are slate gray, black, or blue-black in life, with a white or pale yellow collar. The pale collar may extend from the third scale posterior to the parietals forward to cover the entire head, except for the snout and the area immediately above the eyes, or the collar may extend from the second scale posterior to the parietals forward only to the anterior edges of the parietals, or show variation between these two extremes. The venter is pale gray (in life) to cream (in preservative), with coloration extending dorsally to cover scale row one. Dark brown spots or smudging can be present along the midline of the subcaudal surface. The iris is black.

• **DIAGNOSIS.** The extremely thick, long, fragile tail of *Enuliophis* distinguishes it from all other colubrid genera in the Western Hemisphere, except *Enulius*, *Pliocercus*, *Scaphiodontophis*, and *Urotheca* (see **Remark**). *Enuliophis* differs from *Scaphiodontophis* in having 6–7 unhinged maxillary teeth with posterior teeth enlarged, the hemipenis slightly bilobed with a bifurcated sulcus, a broad white head cap, and uniform dorsal body and tail surfaces. *Enuliophis* is distinguished from *Pliocercus* and



MAP. Distribution of *Enuliophis sclateri*. Dots mark known locality records. The type locality is too imprecise to plot.



FIGURE 1. Adult female *Enuliophis sclateri* (UF 137175) from Caño Awalwás, Gracias a Dios, Honduras (photograph by the author).

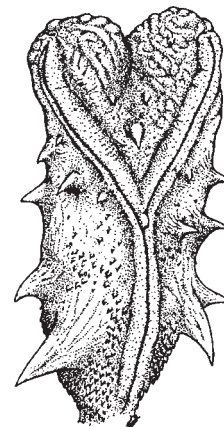


FIGURE 2. Sulcate view of hemipenis of *Enuliophis sclateri* (CRE 8065) (drawn by Dana Krempels).

Urotheca in having 6–7 maxillary teeth (including enlarged posterior teeth), a noncapitate hemipenis, two apical scale pits on many scales, loreal bordering the orbit, and uniformly dark dorsal body and tail surfaces. *Enuliophis* differs from *Enulius* in the hemipenis having a few large spines on a mostly nude truncus, a few small spines scattered on an otherwise nude apical region, and a centrifugal sulcus and in having 129–151 ventral scales.

• **DESCRIPTIONS, ILLUSTRATIONS, DISTRIBUTION, FOSSIL RECORD, AND PERTINENT LITERATURE.** See species account.

• **REMARK.** The relationships of *Enuliophis* are poorly understood (see McCranie and Villa 1993). Zaher (1999) placed *Enuliophis* and its apparent closest relative *Enulius* as *incertae sedis* within the Dipsadinae. Savage (2002) included *Enulius* (he did not recognize *Enuliophis* as distinct; see **Comment**) among his amastriidines. The extremely long, thick, fragile tail of *Enuliophis* and *Enulius* are shared with few other American snake genera (*Scaphiodontophis*, *Pliocercus*, and *Urotheca*; see Savage and Crother 1989). *Scaphiodontophis* is a colubrine and *Urotheca* and *Pliocercus* dipsadines (Savage 2002, Zaher 1999). Thus, the tail character appears to have evolved independently in these lineages and does not offer evidence of close relationships.

• **ETYMOLOGY.** *Enuliophis* is formed from the Greek words *hen* (meaning one), *oule* (scar or mark), and *ophis* (snake). The name alludes to the resemblance of the member of this genus to those species in the genus *Enulius*. The gender is masculine.

• **COMMENT.** McCranie and Villa (1993) erected the genus *Enuliophis* for *E. sclateri*, which had formerly been placed in the genus *Enulius*. This action was based on significant differences in hemipenial structure (a few large spines on a mostly nude truncus, a few small spines scattered on an otherwise nude apical region, and a centrifugal sulcus in *Enuliophis sclateri* versus entire organ covered with minute spines and with a centrolineal sulcus in species of *Enulius*; see McCranie and Villa 1993). Savage (2002) did not recognize *Enuliophis* and stated: "Zaher (1999) amply demonstrated the variation in hemipenes that may [*sic*] occur within a genus." However, Zaher (1999) recognized *Enuliophis* as a distinct genus, noting that its hemipenis differed markedly from that of *Enulius*. Jenner (1981) demonstrated that the hemipenes of *Enulius* (based on *E. flavitorques* and *E. oligostichus*) are unique among American snakes in being covered with minute, uniform spines. McCranie and Villa (1993) and McCranie and Köhler (1999) confirmed that the hemipenes of the two other species of *Enulius* (*E. bifoveatus* and *E. roatanensis*) are similar to those of *E. flavitorques* and *E. oligostichus*. Thus, by recognizing the genus *Enuliophis* for *E. sclateri*, the hemipenes of the members of *Enulius* (*sensu stricto*) remain unique among American snake genera in being covered with minute, uniform spines (Jenner 1981, McCranie and Villa 1993).

Enuliophis sclateri (Boulenger)

Leptocalamus sclateri Boulenger 1894:251. Type locality, "S. America." Holotype, British Museum (Natural History), London (BMNH) 1946.1.21.72, an adult female, collected by P.L. Sclater, date of collection unknown (not examined by author).
Enulius slateri: Dunn 1938:417. *Lapsus*.
Enulius sclateri: Taylor 1951:71.
Enulius solateri: Anonymous 1984:24.
Enuliophis sclateri: McCranie and Villa 1993:262.

• **CONTENT.** No subspecies are recognized.

• **DEFINITION AND DIAGNOSIS.** See generic account.

• **DESCRIPTIONS.** Good descriptions are in Boulenger (1894), Dunn (1938), McCranie and Villa (1993), Savage (2002; although the stated number of infralabials is erroneous), and Taylor (1951, 1954). McCranie and Villa (1993) also described the hemipenis and maxilla.

• **ILLUSTRATIONS.** Color photographs are in Greene (1997), Köhler (2003), Köhler et al. (2004), Pérez-Santos (1999, preserved specimen), and Savage (2002). Black and white photographs are in Netting (1936) and Taylor (1951). Black and white drawings are in Boulenger (1894; head and forebody), Köhler (2001a, 2001b; head), McCranie and Villa (1993; hemipenis, maxilla), Pérez-Santos and Moreno (1988; head), Savage (2002; head), and Taylor (1951; head).

• **DISTRIBUTION.** *Enuliophis sclateri* occurs in humid forests from northeastern Honduras to central Colombia on the Atlantic versant and from western Costa Rica to eastern Panamá on the Pacific versant. The species is known from elevations near sea level to 1285 m. It has been described as both diurnal and nocturnal. Two Honduran specimens were active in leaf litter at night (McCranie et al. 2003) and another during the day.

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** References are listed by topic: lung morphology (Wallach 1998), visceral data (Wallach 1988; although combined with *Enulius flavitorques* under *Enulius*), brief notes on head musculature (Zaher 1999), and relative abundance in Panamá (Dunn 1949).

This species is included in keys, faunal lists, or distributional notes: Colombia (Daniel 1949, 1955; Dunn 1944; Medem 1968; Pérez-Santos and Moreno 1988), Costa Rica (Boulenger 1896; Freed 2003; Guyer 1994; Hayes et al. 1989; Lips 1993; Pounds and Fogden 2000; Savage 1973, 1976, 1980, 2002; Savage and Villa 1986; Scott et al. 1983; Taylor 1951, 1954; Timmerman and Hayes 1981), Honduras (McCranie et al. 2003), Nicaragua (Köhler 1999, 2001b; Köhler et al. 2004; Ruiz 1996; Villa 1983), Panamá (Amaral 1930; Auth 1994; Dunn 1949; Ibáñez and Solís 1993; Ibáñez et al. 1995, 2001; Myers and Rand 1969; Netting 1936; Pérez-Santos 1999, although several localities on his distribution map were erroneously plotted; Pérez-Santos et al. 1993; Rand and Myers 1990; Smith 1958; Young et al. 1999), and general (Duellman 1990; Dunn 1938; Köhler 2001a, 2003; Peters and Orejas-Miranda 1970; Villa et al. 1988).

Smith et al. (1967) and Wilson and Hahn (1973) contain comparative morphological statements. Myers (2003) suggested that this snake might be confused with *Tantilla albiceps* on Barro Colorado Island, Panamá.

• **ETYMOLOGY.** The name *sclateri* is a patronym honoring Philip Lutley Sclater, who donated the holotype to the BMNH.

• **ACKNOWLEDGMENTS.** C. McCarthy and P. Stafford provided information on the holotype. C.W. Myers provided information on a Panamanian record. S.W. Gotte, R. Ibáñez, G. Köhler, and J.A. Poindexter provided publications.

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